REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. In the specification

The specification is amended to provide written support for the changes in figure numbers and for minor informalities. No new matter is added to the application since original Figures 9 and 10 have been replaced with new Figure 9 showing the same features and original Figures 11-13 have been replaced with new Figure 10 showing the same features.

Entry of the AMENDMENT TO THE SPECIFICATION is respectfully requested in the next Office communication.

2. In the drawings

Figures 7-13 are presently corrected in the REPLACEMENT SHEETS of pages 7-10 of the drawings. Specifically, Figures 7 and 8 are replaced with clearer drawings of the original figures. Original Figures 9 and 10 are replaced with new Figure 9, and original Figures 11-13 are replaced with new Figure 10. No new subject matter is introduced, since only clearer drawings of features previously shown are submitted.

It is submitted that the feature of the "nearly tension free loop" is already shown in the drawings. Figures 1a, 1b, 4, and 5 show that web (9) forms a nearly tension free loop near the mechanical means that define an entry position (2) of the web to which the web is supplied.

Acceptance of the REPLACEMENT SHEETS and withdrawal of the drawing objection are respectfully requested in the next Office communication.

3. In the claims

As shown in the foregoing LIST OF CURRENT CLAIMS, the claims have been amended to correct indefinite language, minor informalities, and to more clearly point out the subject matter for which protection is sought.

Claims 19, 21, 30, 31, and 35 have been amended.

Claims 19 and 31 have been amended to correct minor informalities.

Claims 21, 30, and 35 have been amended to correct indefinite language by clarifying "Lguided." Support for this amendment may be found at least on page 10, line 17 to page 11, line 11.

Claims 25 and 26 are withdrawn.

Claims 20, 22-24, 27-29, 32-34, and 36 are left unchanged.

Entry of the LIST OF CURRENT CLAIMS is respectfully requested in the next Office communication.

4. Rejection of claims 19-24 and 27-36 under 35 U.S.C. § 112, 2nd paragraph for indefinite language

A. "Nearly Tension Free Loop"

Claims 19 and 31 are rejected for indefinite language for the phrase "a nearly tension free loop." While the phrase "a nearly tension free loop" does imply some tension, the specification of the instant application explains that the web is not pulled tight but hangs under its own weight. The web is hung in a catenary position between two pay off positions (see page 4, lines 3-9).

Moreover, the term "tension free loop" is a term of art. U.S. patent 6,994,005 (*Lamothe*) refers to U.S. patent 5,505,401 in explaining that a tension free loop may be held between a braked/drag roller and a laser printer at a constant droop or depth to match the speed of the laser printer to a downstream/output device (see col. 2, lines 42-48). Similar to the instant application, the paperweb of *Lamothe* held in a "tension free loop" would still be subject to some tension.

Withdrawal of this rejection is respectfully requested.

B. Max Notation

Claims 19, 21, 30, 31, and 35 are rejected for indefinite language for the use of the notation "max." It is confirmed that the Examiner's understanding of the notation "max" is correct. The Applicant further submits that "maximum" is defined in the

Merriam-Webster dictionary as "the largest of a set of numbers" (see http://www.merriam-webster.com/dictionary/maximum).

Withdrawal of this rejection is respectfully requested.

C. Lguided

Claims 21, 30, and 35 are rejected for indefinite language for the use of the term "Lguided" and have been amended to clarify that Lguided is the length of the second web movement trajectory. It is submitted that length "Lguided" is different from length "L2." L2 is the length where the web is both laterally guided and slides in friction contact with a curved surface. Support for this difference may be found in the Specification on page 10, line 28 to page 11, line 11 where L1 in the claims corresponds to $L_{(supported)}$ in the specifications, Lguided corresponds to $L_{(side\ guided)}$, and L2 corresponds to $L_{(supported\ and\ side\ guided)}$.

Withdrawal of this rejection is respectfully requested.

5. Rejection of claims 19-24 and 30-36 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 3,955,772 (*Chisholm*)

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claims 19-24 and 30-36.

Claim 19 recites a web alignment device with 4 elements: a mechanical means, braking means, means defining a curved or partially curved first web movement trajectory, and adjustable lateral guiding means.

It is submitted that *Chisholm* fails to disclose or suggest all of the features of claim 19.

First, *Chisholm* does not disclose or suggest that the print medium is in sliding contact with the means defining the curved or partially curved first trajectory as required by claim 19. Chisholm discloses an unwinding apparatus for unwinding a substantially round coil of strip material. The apparatus comprises multiple rollers (17) which are coated with an outer layer of a relatively hard rubber composition. This hard rubber composition is used to provide positive frictional engagement to the

periphery of coil (11) (see col. 2, lines 19-22). By coating the rollers (17) with the rubber to provide frictional engagement, *Chisholm* effectively prevents sliding of the coil of strip material on the rollers. In contrast, the present invention allows for sliding in order to reduce the likelihood of damage to the print media by using a medium trajectory along a fixed sliding surface for frictional sliding (see page 13, lines 5-8). Claim 1 also specifies that the means defining a curved or partially curved first web movement trajectory includes areas where the print medium slides in friction contact with a curved surface in a sliding zone. Thus, *Chisholm* does not teach or suggest this feature of claim 1.

Second, *Chisholm* does not teach or suggest that the finite second web movement trajectory with side guides comprises at least a part of the first trajectory where the print medium is in sliding contact with the means defining the first trajectory. As discussed above, no form of sliding contact is present in *Chisholm*. Furthermore, *Chisholm* does not teach or suggest a second trajectory that includes a part of a first trajectory and has side guides that extend in the upstream direction further than the means for defining the entry position. The coil (11) in *Chisholm* is placed on rollers (17) and when the rollers turn, the coil is unwound in the unwinding direction as shown in Fig. 4. In contrast, Fig. 5 of the Specification shows a first and second trajectory where the part of the first trajectory is included in the second trajectory.

Lastly, it would not have been obvious to a skilled person to arrive at a minimum length for the first web trajectory and length of simultaneous side-guiding and support L2 of the greater of a minimum length or of a function of the width of the medium being aligned. *Chisholm* does not disclose or suggest any type of minimum length for the trajectory or side-guide and support. The rejection does not disclose or suggest this requirement of claim 19.

Accordingly, *Chisholm* fails to render claim 19 obvious.

Claim 31 contains similar features to claim 19 and is likewise non-obvious for the same reasons as claim 1. Moreover, claims 20-24, 30, and 32-36 depend from

claims 19 or 31 and are likewise patentable in view of their dependency from claims 19 or 31 and their individually recited features.

Withdrawal of this rejection is respectfully requested.

6. Rejection of claims 19-24 and 30-36 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,685,471 (*Taubenberger*) in view of U.S. patent 4,750,660 (*Kamimura*)

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claims 19-24 and 30-36.

It is submitted that the proposed combination of *Taubenberger* in view of *Kamimura* fails to disclose or suggest all of the features of claim 19.

First, *Taubenberger* fails to disclose or suggest a means defining a curved or partially curved first web movement trajectory with a sliding zone extending over a finite length L1 at a minimum larger than 50 mm as required by claim 19. *Taubenberger* discloses a printing device using a friction device comprising two friction rollers (4). The rollers (4) form a nip between them, and the substrate is fed through the nip by relying on frictional contact with the nip. Since this substrate is fed through the nip using friction, the nip must be much smaller than 50 mm. A skilled person also would not modify the diameter of rollers (4) in order to obtain a nip larger than 50 mm. Doing so would cause undesirable wrinkles or tearing in the substrate.

Moreover, *Taubenberger* only teaches the aligning of the paper web by contact of a single side of the web limiting device. Either the left-hand side or the right-hand side of the web limiting device is used for alignment (see col. 3, lines 39-49). The Office Action acknowledges that *Taubenberger* fails to teach the feature of side guides on both side edges of the web as well as the relationships for the first web trajectories and length L2. *Kamimura* is relied on for the teaching of two side guides.

A skilled person, however, would not modify *Taubenberger* with *Kamimura* to have two side guides. It is unnecessary to *Taubenberger* to have a device to limit

both the right and left side of the paper web. The paper web is pushed against one of the sides of the web limiting device with the aid of the friction rollers (4). Moreover, even if a second guide device was added to *Taubenberger* the pushing of the paper web to one side of the web limiting device would render one of the side guides unused and therefore, unnecessary.

Second, the proposed combination of *Taubenberger* and *Kamimura* would not result in side guides on both side edges of the web which extend in the upstream direction further than the means for defining the entry position. As illustrated in Fig. 2 of *Taubenberger*, the paper web enters the printing device through the web precentering device (3) and web limiting device (5) comprises a portion of web precentering device (3). Furthermore, web limiting device (5) does not extend beyond fixed axles (2). Thus, the side guide of *Taubenberger* does not extend beyond the means for defining the entry position.

Kamimura does not show a specific entry position for the sheet guide positioning apparatus, so presumably, the entry position for the sheet guide is the position where the sheets enter the sheet guides (39, 40) or the frames (21) of the apparatus. Fig. 1 clearly shows that sheet guides (39, 40) do not extend beyond frames (21). Therefore, the proposed combination of *Taubenberger* and *Kamimura* fails to disclose or suggest that the side guides extend beyond the entry position. It is also acknowledged that *Taubenberger* in view of *Kamimura* fails to teach the relationship for finite length L1 and length L2.

It, however, would not have been obvious to a skilled person to arrive at a length for the first web trajectory and length of simultaneous side-guiding and support L2 to be the greater of a minimum length or of a function of the width of the medium being aligned. *Taubenberger* in view of *Kamimura* does not disclose or suggest any minimum length for a trajectory or side-guide and support, and further, the rejection does not disclose or suggest this requirement of claim 19.

Accordingly, claim 19 is non-obvious over the proposed combination of *Taubenberger* and *Kamimura*.

Claim 31 contains similar features to claim 19 and is likewise non-obvious for the same reasons as claim 1. Moreover, claims 20-24, 30, and 32-36 depend from claims 19 or 31 and are likewise patentable in view of their dependency from claims 19 or 31 and their individually recited features.

Withdrawal of this rejection is respectfully requested.

7. Allowable Subject Matter

The Applicant thanks the Examiner for the indication of allowable subject matter in claims 28 and 29.

Claims 28 and 29 depend from claim 19 and are likewise in condition for allowance not only for their individually recited features but also for the reasons state above in claim 1.

8. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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